

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

SMILEDIRECTCLUB, LLC

Plaintiff,

v.

Civil Action No. 20-0583-CFC

CANDID CARE CO.,

Defendant.

Kevin M. Capuzzi, BENESCH FRIEDLANDER COPLAN & ARONOFF, Wilmington, Delaware; Kaplash K. Shah, Manish K. Mehta, Noelle Briana Torrice, Suzanne M. Alton de Eraso, Simeon Papacostas, BENESCH FRIEDLANDER COPLAN & ARONOFF, Chicago, Illinois; Michael S. Weinstein, BENESCH FRIEDLANDER COPLAN & ARONOFF, Cleveland, Ohio

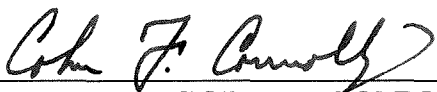
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Counsel for Defendant

MEMORANDUM OPINION

December 7, 2020
Wilmington, Delaware


COLM F. CONNOLLY
UNITED STATES DISTRICT JUDGE

Plaintiff SmileDirectClub, LLC (SDC) has sued Defendant Candid Care, Co. for infringement of U.S. Patent No. 10,636,522 (the #522 patent). D.I. 1. Pending before me is Candid's motion to dismiss pursuant to Federal Rule of Civil Procedure 12(b)(6). D.I. 12. Candid argues that I should dismiss SDC's complaint because the asserted patents are invalid under 35 U.S.C. § 101 for failing to claim patentable subject matter.

I. BACKGROUND

SDC and Candid are competitors in the so-called "direct-to-consumer orthodontics" or remote teleorthodontics business. This business was made possible by the development of intraoral scanners that non-dentist technicians use to take images of a patient's teeth and create three-dimensional, digital representations from which personalized aligners are made for self-insertion by the patient to straighten and reposition teeth. D.I. 1 ¶ 22.

The #522 patent does not describe how to make an intraoral scanner, aligners, or three-dimensional representations of teeth; indeed, the patent does not purport to teach any advances in machinery, equipment, devices, or computer technology. Rather, the invention claimed by the #522 patent is, to use the words of the patent's abstract, "[s]ystems and methods for arranging an intraoral scanning

at a selected location.” #522 patent at abstract. To use the words of the Complaint, the claimed invention is a “business model,” D.I. 1 ¶4, and “revolutionary workflow,” *id.* ¶ 3. Specifically, the #522 patent claims systems and methods by which a patient’s intraoral scan is scheduled, performed, and used to create aligners and the patient receives orthodontic treatment without ever interacting in person with a dentist or orthodontist. D.I. 1 ¶ 16.

The patent has thirty claims. The Complaint alleges that Candid infringes the patent’s four independent claims and “various dependent claims.” D.I. 1. ¶ 69. Candid argues that independent claim 1 is representative. D.I. 9–10. It recites

[a] method of producing aligners for repositioning one or more teeth of a user, the method comprising:

receiving, by an appointment management system, a request to schedule an appointment at an intraoral scanning site, the intraoral scanning site having an intraoral scanner configured to scan a mouth of a user, the appointment being for a technician to conduct an intraoral scan of the mouth of the user at the intraoral scanning site without a dentist or orthodontist physically seeing the user during the scheduled appointment, wherein the technician is not a dentist or an orthodontist;

scheduling, by the appointment management system, the appointment at the intraoral scanning site in accordance with the request;

generating and communicating, by the appointment management system, a message to a device of the user, the message including a confirmation confirming the scheduled appointment;

conducting, using the intraoral scanner, the intraoral scan at the intraoral scanning site during the scheduled appointment, the intraoral scan generating three-dimensional data of the mouth of the user;

causing generation, by a treatment plan computing system located at a treatment plan site, of a treatment plan for the user based on the three-dimensional data of the mouth of the user;

receiving an indication of an approval of the treatment plan by a dental or orthodontic professional, wherein the approval is received without the dental or orthodontic professional having physically seen the user;

producing, at a fabrication site, a plurality of aligners based on the treatment plan, the plurality of aligners specific to the user and being configured to reposition one or more teeth of the user in accordance with the treatment plan; and

sending the plurality of aligners from the fabrication site directly to the user, wherein the user receives orthodontic treatment without ever having physically seen the approving dental or orthodontic professional.

SDC takes the position that no single claim of the patent is representative.

When I limited SDC to two asserted claims for purposes of deciding its pending preliminary injunction motion, SDC selected claims 4 and 20. D.I. 31 at 2. Claim 4, which depends from claim 1, recites

[t]he method of claim 1, wherein the approval by the dental or orthodontic professional is a first approval, the method further comprising:

responsive to receiving the first approval, providing data indicative of the treatment plan to the user; and

receiving a second approval of the treatment plan,
wherein the second approval of the treatment plan is
received from the user following the first approval being
received from the dental or orthodontic professional;

wherein producing the plurality of aligners is performed
responsive to receiving the first approval and the second
approval of the treatment plan.

Claim 20 recites

[a] system for producing aligners for repositioning one or
more teeth of a user, the system comprising:

an appointment management system configured to:

receive a request to schedule an appointment at an
intraoral scanning site, the appointment being for a
technician to conduct an intraoral scan of a mouth of a
user at the intraoral scanning site without a dentist or
orthodontist physically seeing the user during the
scheduled appointment, wherein the technician is not a
dentist or orthodontist;

schedule the appointment at the intraoral scanning site in
accordance with the request;

generate and communicate a message to a device
associated with the user, the message including a
confirmation confirming the scheduled appointment;

the intraoral scanning site comprising:

an intraoral scanner configured to generate three-
dimensional data from the intraoral scan of the mouth of
the user; and

one or more intraoral scanning site computing systems
configured to communicate the three-dimensional data

from the intraoral scanner for generation of a treatment plan, wherein the treatment plan is approved by a dental or orthodontic professional without the dental or orthodontic professional having physically seen the user; and

a fabrication system including one or more fabrication sites associated with the production and shipment of aligners, the fabrication system comprising:

one or more fabrication computing systems configured to receive treatment plan data corresponding to the treatment plan for the user; and

equipment configured to produce a plurality of aligners based on the treatment plan data, the plurality of aligners being specific to the user and being configured to reposition one or more teeth of the user based on the treatment plan;

wherein the plurality of aligners are sent from at least one of the one or more fabrication sites directly to the user for repositioning the one or more teeth of the user, and the user receives orthodontic treatment without ever having physically seen the approving dental or orthodontic professional.

The remaining claims of the #522 patent recite additional permutations of the same general workflow, described either as methods (as in claim 1) or as systems (as in claim 20).

II. LEGAL STANDARDS

A. Stating a Claim

To state a claim on which relief can be granted, a complaint must contain “a short and plain statement of the claim showing that the pleader is entitled to relief.”

Fed. R. Civ. P. 8(a)(2). Detailed factual allegations are not required, but the complaint must include more than mere “labels and conclusions” or “a formulaic recitation of the elements of a cause of action.” *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 555 (2007) (citation omitted). The complaint must set forth enough facts, accepted as true, to “state a claim to relief that is plausible on its face.” *Id.* at 570. A claim is facially plausible “when the plaintiff pleads factual content that allows the court to draw the reasonable inference that the defendant is liable for the misconduct alleged.” *Ashcroft v. Iqbal*, 556 U.S. 662, 678 (2009) (citation omitted). Deciding whether a claim is plausible is a “context-specific task that requires the reviewing court to draw on its judicial experience and common sense.” *Id.* at 679 (citation omitted).

When assessing the merits of a Rule 12(b)(6) motion to dismiss, a court must accept as true all factual allegations in the complaint and in documents explicitly relied upon in the complaint, and it must view those facts in the light most favorable to the plaintiff. *See Umland v. Planco Fin. Servs.*, 542 F.3d 59, 64 (3d Cir. 2008); *Schmidt v. Skolas*, 770 F.3d 241, 249 (3d Cir. 2014) (internal quotation marks omitted).

B. Patent-Eligible Subject Matter

Section 101 of the Patent Act defines patent-eligible subject matter. It provides: “Whoever invents or discovers any new and useful process, machine,

manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.” 35 U.S.C. § 101.

There are three judicially-created limitations on the literal words of § 101. The Supreme Court has long held that laws of nature, natural phenomena, and abstract ideas are not patentable subject matter. *Alice Corp. Pty. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014). These exceptions to patentable subject matter arise from the concern that the monopolization of “these basic tools of scientific and technological work” “might tend to impede innovation more than it would tend to promote it.” *Id.* (internal quotation marks and citations omitted). Abstract ideas include mathematical formulas and calculations. *Gottschalk v. Benson*, 409 U.S. 63, 71–72 (1972).

“[A]n invention is not rendered ineligible for patent [protection] simply because it involves an abstract concept[.]” *Alice*, 573 U.S. at 217.

“[A]pplication[s] of such concepts to a new and useful end . . . remain eligible for patent protection.” *Id.* (internal quotation marks and citations omitted). But in order “to transform an unpatentable law of nature [or abstract idea] into a patent-eligible application of such law [or abstract idea], one must do more than simply state the law of nature [or abstract idea] while adding the words ‘apply it.’” *Mayo*

Collaborative Servs. v. Prometheus Lab'ys, Inc., 566 U.S. 66, 71 (2012) (emphasis omitted).

In *Alice*, the Supreme Court made clear that the framework laid out in *Mayo* for determining if a patent claims eligible subject matter involves two steps. The court must first determine whether the patent's claims are drawn to a patent-ineligible concept—i.e., are the claims directed to a law of nature, natural phenomenon, or abstract idea? 573 U.S. at 217. If the answer to this question is no, then the patent is not invalid for teaching ineligible subject matter. If the answer to this question is yes, then the court must proceed to step two, where it considers “the elements of each claim both individually and as an ordered combination” to determine if there is an “inventive concept—i.e., an element or combination of elements that is sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.” *Id.* at 217–18 (alteration in original) (internal quotations and citations omitted). A claim recites an inventive concept “when the claim limitations involve more than performance of well-understood, routine, and conventional activities previously known to the industry.” *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1367 (Fed. Cir. 2018), *cert. denied*, 2020 WL 129532 (U.S. Jan. 13, 2020) (internal quotation marks, alterations, and citations omitted).

III. DISCUSSION

Applying the two-step framework from *Alice*, I find that the claims of the #522 patent recite patent-ineligible subject matter. The #522 patent claims are directed to the abstract idea of “teleorthodontics” and do not contain any inventive concept.

A. All Claims Can Be Considered Together

After reviewing all thirty claims of the #522 patent, I conclude that the claims are all substantially similar and that no individual claim contains limitations that raise distinct issues for determining that claim’s § 101 eligibility. *See Content Extraction & Transmission LLC v. Wells Fargo Bank*, 776 F.3d 1343, 1348 (Fed. Cir. 2014) (holding that substantially similar claims directed to the same abstract idea can be considered together for subject matter eligibility). The independent claims all describe methods or systems that cover the same business strategy. When the only difference between claims is the form in which they are drafted, it is appropriate to treat them as “as equivalent for purposes of patent eligibility under § 101.” *Bancorp Servs., L.L.C. v. Sun Life Assur. Co. of Canada (U.S.)*, 687 F.3d 1266, 1277 (Fed. Cir. 2012).

The dependent claims of the #522 patent simply add steps or conditions to the workflow recited in claim 1. None of these additional limitations affect the *Alice* analysis. For example, claim 2 adds a videoconference between the patient

and the dentist or orthodontist while claim 12 requires that there is no such videoconference. Claim 3 specifies that the generation of the treatment plan uses a treatment plan computing system. Each dependent claim is directed to the same idea and none add any new technological improvements.

The similarity of the claims for the purposes of § 101 can be illustrated by comparing claims 1, 4, and 20. Claim 1 describes a series of steps that enable a patient, who never sees a dentist or orthodontist in person, to arrange for an intraoral scan and receive aligners based on that scan. First, the patient uses an “appointment management system” to arrange for an intraoral scan. Next, the scan is taken, and that scan is used as input for a “treatment plan computing system.” A dentist or orthodontist remotely approves the treatment plan, and the aligners are “produc[ed]” and sent to the patient. #522 patent at claim 1. The additional elements recited in claim 4 merely require that the patient, and not just the treating orthodontist or dentist, approve the treatment plan. They do not change the fact that the claim is directed to an abstract workflow; and the addition of the patient’s approval does not add an inventive feature that affects step two of *Alice*.

Claim 20 describes the same workflow, but as a system. The system has three components that perform the steps described in claim 1: (1) a generic “appointment management system,” (2) an “intraoral scanning site,” and (3) a “fabrication system.” #522 patent at claim 20. As with the other claims, this

system enables a patient to arrange for and receive aligners without ever interacting in person with a dentist or orthodontist. #522 patent at claim 20. Since claim 20 merely restates in a different form the same workflow recited in claim 1, the claims can be considered together.

SDC argues that a representative claim analysis is inappropriate, because Candid did not conduct a meaningful analysis of every claim. D.I. 17 at 8. But Candid explained that the independent claims were different formulations of the same workflow and that none of the dependent claims added limitations that affect subject-matter eligibility. D.I. 9–12. SDC makes specific arguments against representativeness only with respect to claims 3, 7, 15, 16, and 20. SDC argues that these claims include concrete technical improvements not present in the remaining claims.

Claim 3, however, simply expands on the computational process for generating a treatment plan but does not add any technical innovations. And although claim 7 mentions a fabrication method for aligners, it is directed to the same abstract idea as every other claim and the fabrication method it recites is routine and well-understood. Claims 15 and 16 merely add the incidental requirement of having three steps of treatment. And claim 20, as explained above, differs from claim 1 only insofar as it describes the claimed workflow as a system as opposed to a method. In sum, the various dependent claims of the #522 patent

specify different options that might be incorporated into the workflow described in claim 1. None of these options change the focus of the claims from that general workflow, add any technical improvements to the aligner fabrication process, or add inventive features. All the claims can therefore be considered together for the purpose of subject-matter eligibility under § 101.

B. Resolving the Case on a Motion to Dismiss is Appropriate

“[W]hether a claim recites patent eligible subject matter is a question of law [that] may contain underlying facts.” *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1368 (Fed. Cir. 2018). But “not every § 101 determination contains genuine disputes over the underlying facts” *Id.* When there is no dispute of material fact, § 101 arguments may be resolved at the pleading stage. *Id.* For any claim construction disputes, “the court must proceed by adopting the non-moving party’s constructions or the court must resolve the disputes to whatever extent is needed to conduct the § 101 analysis, which may well be less than a full, formal claim construction.” *Aatrix Software, Inc. v. Green Shades Software, Inc.*, 882 F.3d 1121, 1125 (Fed. Cir. 2018) (internal citations removed). The Federal Circuit has “repeatedly affirmed § 101 rejections at the motion to dismiss stage, before claim construction or significant discovery has commenced.” *Cleveland Clinic Found. v. True Health Diagnostics LLC*, 859 F.3d 1352, 1360 (Fed. Cir. 2017); *see also SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1166 (Fed. Cir. 2018) (citing cases);

Epic IP LLC v. Backblaze, Inc., 351 F. Supp. 3d 733, 751–52 (D. Del. 2018) (Bryson, J.) (discussing when it is appropriate to resolve a § 101 motion on the pleadings).

SDC argues that fact discovery is required before I rule on the motion. D.I. 17 at 21. But it has identified no factual dispute, and the patent itself explains that the technology used in the claimed workflow was routine or well-understood. #522 patent at 13:45–47, 14:4–5, 19:63–65. Thus, discovery is not necessary.

SDC also argues that claim construction is necessary to clarify the scope and meaning of the claims. DI. 17 at 7. It identifies two claim construction issues. First, it argues that the preamble of claims 1, 20, and 24 should be construed as limiting because they describe the claims as directed to systems or methods for “producing aligners.” DI. 17 at 7; #522 patent at claim 1 (20:35–36), claim 20 (23:39–40), claim 24 (24:44–45). Second, it argues that it is necessary to determine whether the steps of the claimed methods must be performed in a particular order. DI. 17 at 7–8.

Neither of these arguments affect my § 101 ruling. First, it is not necessary to determine whether the preambles limit the claims because the claims themselves require either the production of aligners or a system for fabricating aligners. #522 patent at claim 1 (20:66–67), claim 20 (23:65–25:10). Second, the order of the steps in the claims has no bearing on whether they are directed to an abstract idea

or contain an inventive step. Notably, neither party takes a position on whether the claims should be read to require a particular order. D.I. 17 at 7–8; D.I. 18 at 10.

Third, Candid does not oppose SDC’s reading of the claims, and SDC has not clearly articulated why there is a material dispute that needs preliminary resolution. *See* D.I. 18 at 9. In sum, SDC has not established that a claim construction issue affects the subject-matter eligibility analysis.

C. *Alice* Step One

I turn then to whether the claims at issue are directed to a patent-ineligible concept. *Alice*, 573 U.S. at 217. “[C]laims are considered in their entirety [at step one] to ascertain whether their character as a whole is directed to excluded subject matter.” *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015).

“The Supreme Court has not established a definitive rule to determine what constitutes an ‘abstract idea’ sufficient to satisfy the first step of the *Mayo/Alice* inquiry.” *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1334 (Fed. Cir. 2016) (citation omitted). The Court has recognized, however, that fundamental economic practices, methods of organizing human activity, and mathematical formulae are abstract ideas. *See Bilski v. Kappos*, 561 U.S. 593, 611 (2010) (“fundamental economic practice” of hedging is unpatentable abstract idea); *Alice*, 573 U.S. at 220–21 (“organizing human activity” of intermediated settlement falls “squarely

within realm of ‘abstract ideas’”); *Gottschalk v. Benson*, 409 U.S. 63, 68, 71–72 (1972) (mathematical algorithm to convert binary-coded decimal numerals into pure binary code is unpatentable abstract idea); *Parker v. Flook*, 437 U.S. 584, 594–95 (1978) (mathematical formula for computing “alarm limits” in a catalytic conversion process is unpatentable abstract idea).

To determine whether claims are directed to an abstract idea courts generally “compare the claims at issue to those claims already found to be directed to an abstract idea in previous cases.” *Enfish*, 822 F.3d at 1334. The Federal Circuit has also instructed district courts to consider as part of *Alice*’s step one whether the claims “focus on a specific means or method that improves the relevant technology or are instead directed to a result or effect that itself is the abstract idea and merely invoke generic processes and machinery.” *McRO, Inc. v. Bandai Namco Games America Inc.*, 837 F.3d 1299, 1314 (Fed. Cir. 2016) (citing *Enfish*, 822 F.3d at 1336).

Applying these standards, I find that the #522 patent is directed to the abstract idea of having patients arrange for and receive dental aligners without ever seeing a dentist or orthodontist in person. Candid accurately describes this idea as “teleorthodontics.” D.I. 13 at 12. Individual claims add additional steps to the workflow or recharacterize it as a system rather than a method, but these variations are all still directed to the same abstract idea.

In performing step one of the *Alice* inquiry, I am required to “look at the focus of the claimed advance over the prior art to determine if the claim’s character as a whole is directed to excluded subject matter.” *Affinity Labs of Texas, LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1257 (Fed. Cir. 2016) (quotation marks omitted). Here, the claimed advance is providing dental aligners without any in-person interaction with a dentist or orthodontist. SDC itself describes the “key technological contribution” of the #522 patent as its “revolutionary workflow.” D.I. 1 ¶ 3. The patent claims achieve this advance without any technical improvements to orthodontic methods or communication technology. The invention is simply the abstract idea of connecting patients with orthodontists remotely. There is “no particular concrete or tangible form” to the claimed invention. *Ultramercial, Inc v. Hulu, LLC*, 772 F.3d 709, 715 (Fed. Cir. 2014).

Numerous cases have established that patents that simply take a standard business practice and describe how to conduct it over the internet or with modern information technology are directed to abstract ideas. *See, e.g., Alice*, 573 U.S. at 212; *In re Greenstein*, 778 F. App'x 935, 938 (Fed. Cir. 2019) (affirming the denial of a patent application describing a business method to improve the reliability of online reviews on § 101 grounds); *Affinity Labs*, 838 F.3d at 1258 (finding patent that claimed systems and methods for streaming out-of-region broadcast content to cellphones was directed to an abstract idea); *Intellectual Ventures I LLC v. Capital*

One Bank (USA), 792 F.3d 1363, 1367 (Fed. Cir. 2015) (finding claims directed to budgeting using a “communication medium” abstract); *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014) (finding patent directed to “creating a contractual relationship” abstract notwithstanding its invocation of computer technology). Telehealth business methods in particular have been deemed ineligible for patent protection under §101. *See Becton, Dickinson & Co. v. Baxter Int’l, Inc.*, 127 F. Supp. 3d 687, 689, 692–93 (W.D. Tex. 2015) (“The fact that the pharmacist is ‘remote’ is of no added consequence to the abstract nature of the concept.”); *Am. Well Corp. v. Teladoc, Inc.* 191 F. Supp. 3d 135, 143 (D. Mass 2016) (holding that the asserted claims were invalid under § 101, when those claims were directed to connecting patients to available doctors in a telehealth environment).

American Well is particularly informative, because the patent at issue in that case was directed at a workflow for connecting patients to doctors in a telehealth setting. 191 F. Supp. 3d at 138. The *American Well* court concluded that the claimed workflow was abstract because it merely described a “method of organizing human activity” without any “particular concrete or tangible form.” *Id.* at 144 (internal quotation marks and citations omitted). The court emphasized that this result held regardless of whether there was a “pre-internet analog” for the idea. *Id.* The same logic applies here.

Align Technologies, Inc v. 3Shapes A/S is also instructive. 339 F. Supp. 3d. 435 (D. Del. 2018). The court found in that case that a patent directed to a dental workflow that simply updated traditional practice with new computer technology was invalid for claiming ineligible subject matter. As the court explained, efficiency gains due to “routine computer functionality do[] not render a claim non-abstract” and “performing an abstract concept on a generic computer is not an inventive concept.” *Id.* at 452–53. Like the patent in *Align*, the #522 patent takes an established workflow and then emphasizes the benefits of implementing that workflow with generic technology.

SDC asserts that the claims of the #522 Patent are directed to “producing aligners” and improving aligner manufacturing methods. D.I. 17 at 12. But the claims do not disclose a method of manufacturing dental aligners. Rather, they describe methods for streamlining business operations in order to take advantage of improvements in communication technology. *Cf. Am. Axle & Mfg., Inc. v. Neapco Holdings LLC*, 967 F.3d 1285, 1290, 1292 (Fed. Cir. 2020) (finding a patent claim ineligible under § 101 despite being characterized as a “method for manufacture”). Indeed, the only references to the actual methods for fabricating aligners in the #522 patent are general statements that aligners may be fabricated by thermoforming a polymer to a mold of the patient’s teeth. #522 patent at 6:17–20, 15:59. Claim 1 merely requires “producing, at a fabrication site, a plurality of

aligners.” #522 patent at claim 1 (20:66). Claim 20 requires “a fabrication system,” but explains that such a system requires only a “computing system” to receive the patient’s treatment data and “equipment configured to produce” aligners for the patient. #522 patent at claim 20 (23:65–24:8). Even claim 7, which adds limitations requiring that the aligners be produced by “terraforming polymer material” to “positive molds” does not change the focus of the claim from the idea of teleorthodontics. #522 patent at claim 7 (21:66–67).

The *Alice* test requires looking to the substance of the claimed invention, not to whether the claims are written as a method of manufacturing or as a physical system. *Trading Techs. Int’l, Inc. v. IBG LLC*, 921 F.3d 1378, 1384 (Fed. Cir. 2019) (“[W]e evaluate the focus of the claimed advance over the prior art to determine if the character of the claim as a whole, considered in light of the specification, is directed to excluded subject matter.” (internal quotation marks omitted)). Supreme Court precedent requires that I do not allow the “determination of patentable subject matter [to] depend simply on the draftsman’s art.” *Parker*, 437 U.S. at 593. To accept that the #522 patent claims are subject-matter eligible simply because they require “producing aligners” without looking at the actual claimed invention would go against this teaching and ignore the character of the claims as a whole.

The patent's written description and SDC's characterization of Candid's alleged infringement of the patent are also inconsistent with SDC's contention that the #522 patent is directed to manufacturing methods. The patent's title is "Arrangements for Intraoral Scanning," and its abstract describes the invention as "[s]ystems and methods for arranging an intraoral scanning at a selected location." This acknowledgement that the claimed invention focuses on arrangements—i.e., workflows—as opposed to manufacturing supports the conclusion that the claims are directed to an abstract business plan rather than a manufacturing process or physical system. SDC's insistence that the #522 patent teaches methods and systems for manufacturing is further undermined by its own characterization of Candid's "business model" as an implementation of the #522 patent "workflow." D.I. 1 at 9.

In support of its position that the #522 patent is directed to manufacturing processes, SDC cites *Nike, Inc v. Puma North America, Inc.*, CV 18-10876-LTS, 2018 WL 4922353 (D. Mass. Oct. 10, 2018), and *Diamond v. Diehr*, 450 U.S. 175 (1981). These cases are informative, but not in the way SDC argues. Instead they illustrate why the #522 patent is not directed to the manufacture and production of aligners. In *Nike*, the claims were subject-matter eligible because they were directed to improving the physical process of manufacture itself. *Nike*, 2018 WL

4922353, at *4. In contrast, the #522 patent does not concern how aligners are fabricated.

Similarly, in *Diehr*, the patent was subject-matter eligible because the invention was applied as an integral part of an improved manufacturing process. 450 U.S. at 184. But here the idea claimed by the invention—arranging for a patient to have an intraoral scan and receive delivery of aligners without being in the physical presence of a dentist or orthodontist—does not depend on how the aligners are fabricated.

In sum, the claims are directed to economic practices and methods of organizing business operations, undoubtably a form of human activity. Accordingly, the #522 is directed to an abstract idea.

D. *Alice* Step Two

Having found that the claims are directed to an abstract idea, I must determine whether the claims contain an “‘inventive concept’ sufficient to ‘transform’ the claimed abstract idea into a patent-eligible application.” *Alice*, 573 U.S. at 221 (quoting *Mayo*, 566 U.S. at 77). It is insufficient for the patent to “‘simply state the law of nature while adding the words ‘apply it.’” *Mayo*, 566 U.S. at 72. A claim directed towards an abstract idea must include “‘additional features’ to ensure ‘that the [claim] is more than a drafting effort designed to monopolize the [abstract idea].’” *Alice*, 573 U.S. at 221 (alterations in original)

(quoting *Mayo*, 566 U.S. at 77). No such additional features exist here, and I find that, whether considered individually or as an ordered combination, the claim elements of the #522 patent do not “transform” the claimed abstract ideas into patent-eligible subject matter.

The #522 patent simply takes an abstract idea and provides several ways in which a business could “apply it” using routine scanning technology, generic computers, and routine communication technology. *Mayo*, 566 U.S. at 72; *see also Intellectual Ventures I v. Capital One Fin. Corp.*, 850 F.3d 1332, 1341 (Fed. Cir. 2017) (finding no inventive concept when the patent claims merely recited how an abstract idea could be implemented on a generic computer). Setting aside the subject-matter ineligible abstract idea itself, the claims only recite routine and well-understood practices. The #522 patent does not describe any “additional features” that “transform” the abstract idea into an invention eligible for patent protection. *Alice*, 573 U.S. at 221.

SDC argues that the claims meet the inventive concept test because they describe an unconventional manufacturing process. D.I. 17 at 19. But, as noted above, the #522 patent does not teach a manufacturing process but instead describes a workflow that enables a patient, without seeing an orthodontist in person, to arrange for an intraoral scan that is subsequently used to manufacture and deliver aligners. For example, claim 1 says nothing about manufacturing

except that the method includes “producing, at a fabrication site, a plurality of aligners based on the treatment plan.” #522 patent at claim 1 (20:66–67); *see also* #522 patent at claim 20 (23:65–24:8) (providing a similarly generic description of a fabrication site). SDC did not invent the use of intraoral scans to create aligners. #522 patent at 14:4–5. The specification makes clear that that the workflow can be implemented with existing scanners, #522 patent at 13:45–47, and existing computer processes, #522 patent at 19:63–65. And SDC has not identified any way that the #522 patent describes improvements to the physical process of manufacturing aligners. The relevant manufacturing process, to the extent that it is discussed at all, is conventional.

SDC also argues that the #522 patent discloses the inventive step of not having the user physically see the approving dentist or orthodontist. D.I. 19. But having the patient never physically see their dentist or orthodontist is simply part of the abstract idea. And § 101 requires that patents claim more than an abstract idea. *Mayo*, 566 U.S. at 72–73 (explaining the inventive concept must be “significantly more” than the abstract idea itself); *BSG Tech LLC v. Buyseasons, Inc.*, 899 F.3d 1281, 1290 (Fed. Cir. 2018) (“a claimed invention's use of the ineligible concept to which it is directed cannot supply the inventive concept”). When the #522 patent was filed in 2018, it was routine to conduct business across geographical distance through the internet, to ship physical goods, and to use other

modern information technologies. The claims describe a method and a system for using these routine practices to implement the abstract idea to which all the claims of the #522 patent are directed. *See, e.g.*, #522 patent at claim 1, claim 4, claim 20.

Claims 4 and 20 provide two particular formulations for how the abstract idea can be applied with well-understood and conventional activities. Claim 4 takes the general workflow and adds the additional step of approval by the user. #522 patent at claim 4. Claim 20 rephrases the business plan described in claim 1 as a system rather than as a method. #522 patent at claim 20. But neither these claims nor the other claims of the patent describe “additional features” that “transform the claimed abstract idea into a patent-eligible application.” *Alice*, 573 U.S. at 221 (internal quotation marks omitted).

IV. CONCLUSION

For the reasons discussed above, I find that all claims of the #522 patent are invalid for lack of subject-matter eligibility. Accordingly, I will grant Candid’s motion to dismiss.

The Court will issue an Order consistent with this Memorandum Opinion.